

**REMARKS**

Reconsideration and allowance of the above-referenced application are respectfully requested.

**I. STATUS OF THE CLAIMS**

None of the claims are amended herein.

In view of the above, it is respectfully submitted that claims 2, 3, 5 and 7 are currently pending and under consideration in the present application.

**II. REJECTION OF CLAIMS 2, 3, 5, AND 7 UNDER 35 U.S.C. §103(A) AS BEING UNPATENTABLE OVER KANDEL ET AL. (U.S. 6,353,671) IN VIEW OF IBM TECHNICAL DISCLOSURE BULLETIN (IBM)**

The present invention as recited in claim 2, relates to an acoustic signal processor, which comprises “a detector detecting a frequency band having a highest energy level among frequency bands comprising the acoustic signals input into the input unit.” The acoustic signal processor also includes “a variable equalizer maintaining the energy level of the acoustic signals input into the input unit substantially at a constant level for frequency bands lower than the frequency band detected by the detector, and increasing the amplification degree of the energy level of the acoustic signals input into the input unit as the frequency increases for the frequency bands higher than the frequency band detected by the detector, wherein the variable equalizer has a 6 db/octave high pass filter characteristic.”

Terry teaches a system for adaptive processing of telephone voice signals. In item 3, on page 3 of the Office Action, the Examiner asserts, “Terry discloses increasing the amplification degree at frequencies higher than the first formant to improve speech intelligibility (col. 6, lines 41-55).”

Like Kandel, however, Terry does not detect a frequency band having a highest energy level of the input acoustic signals and variable depending on the input acoustic signal. Terry merely teaches that “[the] system can be used to optionally remove or attenuate the first speech formant...enable[ing] the relative energy in the second formant region to be increased thus increasing the prominence of the second formant.”

The Examiner further asserts that Kandel discloses a variable frequency response where low frequencies are maintained at a constant level to increase speech intelligibility.

As mentioned in the previous response, although the gain amplifier 114 amplifies second

formant frequencies passing therethrough, the amplified frequency range is not variable and only the gain is controlled (see column 9, lines 5-13 of Kandel). In the present invention, the frequency range amplified by the variable equalizer is variable because the frequency band having a highest energy of the input acoustic signal is variable (see claim 2).

Accordingly, Terry and Kandel, either alone or in combination, fail to teach or suggest the features recited in claim 2 of the present invention.

Similar to claim 2, claims 3 and 5 also recite an acoustic signal processor, which comprises "a detector detecting a frequency band having a highest energy level among frequency bands comprising the acoustic signals input into the input unit" and "a variable equalizer maintaining the energy level of the acoustic signals input into the input unit substantially at a constant level for frequency bands lower than the frequency band detected by the detector, and increasing the amplification degree of the energy level of the acoustic signals input into the input unit as the frequency increases for the frequency bands higher than the frequency band detected by the detector." Thus, it is submitted that Terry and Kandel, either alone or in combination, fail to teach or suggest the features recited in claims 3 and 5 of the present invention.

The IBM reference teaches a speech recognition system, but fails to teach or suggest the claimed detector and variable equalizer as recited in claims 2, 3, and 5 of the present invention. It is submitted that Terry, Kandel and the IBM reference, either alone or in combination, do not teach the features recited in claims 2, 3, and 5 of the present invention.

Claim 7 depends from claim 3 and patentably distinguishes over the cited prior art for at least the same reasons as claim 3.

In view of the above, it is respectfully submitted that the rejection is overcome.

### **III. CONCLUSION**

In view of the foregoing remarks, it is respectfully submitted that each of the claims patentably distinguishes over the prior art, and therefore defines allowable subject matter. A prompt and favorable reconsideration of the rejection along with an indication of allowability of all pending claims are therefore respectfully requested.

If there are any additional fees associated with filing of this Response, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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